

THE FACTORS AFFECTING THE COMPANY'S CASH HOLDING (EMPIRICAL STUDY OF LISTED MANUFACTURING COMPANIES INDONESIA)

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ABSTRACT

The focus of this study is, discussing about the factors that affect cash holdings of manufacturing companies, listed on Indonesian Stock Exchange (IDX) in 2009-2016. The sample was determined by purposive sampling method and obtaining 107 sample firms. In this study, the test is conducted to examine whether capital expenditures, cash flow volatility, business group, dividend, firm size, growth opportunities, operating cash flow, and net working capital have significant effect on the company's cash holdings. This study is classified as a causative research. This study is analyzed by using panel regression with estimation method of least square dummy variables (LSDV), which combines data having the effect of cross-section and time series. By using fixed effect model and a significance level of 5%, the result shows that, capital expenditure, dividend, growth opportunity, and net working capital significantly affect on cash holdings, while other variables have no significant effect.

KEYWORDS: Cash Holdings, Manufacturing Company & Indonesia

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INTRODUCTION

Countries in Southeast Asia including Indonesia, cash represents most of the company's assets. The average cash held by ASEAN companies increased, in 1996 only by 8% and in 2015 to 12%. For managers who come from manufacturing companies, cash flow becomes one of the mainstays in deciding the purchase of raw materials needed. According to D'Mello, (2008) approximately 1.5% of the average assets of industrial companies are owned in cash. If, the cash stored on the balance sheet is too big means idle money, but if the amount of cash is too small is also not good for the company. Therefore, corporate finance managers are required to be able to manage cash properly and carefully.

A manager is responsible for managing efficient cash and choosing the right type of investment with the goal of achieving maximum shareholder value. Preparation of financial planning strategies, the accuracy of the use of cash is an important thing in an effort to fulfill these responsibilities. A company needs operational funds, to always fund the needs of the company's operational activities, such as paying wages, salaries, electricity and telephones, purchasing raw materials and others. Cash holding is a current asset used for the needs of the company's day-to-day operations. In addition, cash can also be used for several things, such as cash dividends that are distributed to company shareholders, as well as other company needs (Ross *et al*, 2010).

According to Bates et al., (2009) there are three reasons a company has cash availability for transactions,

as reserves, and speculative motives. First, the transaction activity used to finance all of its business activities. Second, in order to anticipate the companies, if at any time when the economic conditions take place not as expected or often called the motive just in case. Third, the motivation of the company is due to the huge investment opportunities to obtain high returns.

Cash is defined as the most liquid and the least profitable asset. It provides the firm with liquidity and facilitates the payment of various types of obligations. Without sufficient liquid assets, a company will not be able to meet those obligations and hence it will be forced to declare bankruptcy, sooner or later. It plays an important role in corporate finance. Corporate cash holding is one of the most essential issues and strategies of corporate financial management, which not only relates to corporate operation and development, but also relates to the corporate governance and the institutional environment (Ma Yifan, 2012).

Cash holdings are commonly defined as cash and marketable securities or cash equivalents (Opler et al., 1999). Cash equivalents are current assets, which can be converted into cash in a very short term and are thus characterized by a high degree of liquidity. The studies of Opler et al. (1999), also provide a fundamental framework to study the determinants of cash holdings and find several influential factors that determine cash holdings, including corporate growth prospects, short-term working capital, leverage, volatility, and firm size.

This study wants to examine and analyze whether some factors having a significant effect on cash holding. The independent variables used in this study are capital expenditures, cash flow volatility, business group, dividend, firm size, growth opportunities, operating cash flow, and net working capital. The analysis uses the panel data regression which consists of cross-sectional and time series data and is carried out to analyze industrial and time differences in cash holdings.

LITERATURE REVIEW

Hypotheses

Agency theory predicts a negative relationship between growth opportunities and cash holdings (Ferreira and Vilela, 2004). Companies with poor growth opportunities will accumulate more money to invest in growth projects even if the project has a negative net present value. The opposite, trade-off theory predicts that firms with better growth opportunities will have higher cash rates to avoid the pressure of financial distress (Almeida, 2010). These arguments lead to the first hypothesis.

H_1 = There is a positive/negative relationship between growth opportunities and cash holdings

Based on Guizani (2017), larger companies have more cash flow stability. Therefore, the company has a smaller chance of experiencing financial distress. Contrary to that, pecking order theory asserts that cash holdings increase with firm size, since larger firms are expected to be more historically beneficial and thus collect more cash (Opler et al., 1999).

H_2 = There is a positive/negative relationship between firm size and cash holdings

Free cash flow theory states that the operating cash flow used as a source of ready-made liquidity can be viewed as an alternative to liquid cash and there is a negative relationship between operating free cash flow and cash holdings (Ferreira and Ozkan, 2004). On the other hand, Pecking Order theory states that there is a significant positive relationship between operating free cash flow and cash holdings.

H_3 = There is a positive/negative relationship between operating cash flow and cash holdings

The company with high cash flow volatility will maintain a higher cash rate in anticipation of future cash flow shortfalls (Opler et al., 1999). Companies that are experiencing financial distress can increase their cash holdings to reduce risk. Therefore, the relationship between the volatility of cash flows and the level of cash holdings is uncertain, so that the relationship can be positive or negative.

H_4 = There is a positive/negative relationship between cash flow volatility and cash holdings

When there is an alternative source of available liquidity, trade-off theory predicts that the company will hold less cash because liquid assets can be liquidated when cash is needed (Al-Najjar, 2013). The expected relationship of the outcome is negative. However, there may also be a positive relationship between the two.

H_5 = There is a positive/negative relationship between net working capital and cash holdings

According to Opler et al (1999), the reasons of companies that have higher capital expenditures tend to have more liquid assets. The pecking order theory states that, firms with higher capital or investment expenditures will use liquid assets or cash for that and they will have fewer internal resources. Therefore, a negative relationship can occur.

H_6 = There is a positive/negative relationship between capital expenditures and cash holdings

According to the trade-off theory, companies with sufficient cash flow will pay dividends or buy back shares so that they have less liquid assets. However, Ozkan and Ozkan (2004) highlight the possibility that firms paying dividends may hold more cash than firms that do not support their dividend payouts. Therefore, the decision to pay dividends can have a positive or negative effect on cash holdings.

H_7 = There is a positive/negative relationship between dividend and cash holdings

The literature on internal capital markets shows several reasons why business groups should hold less cash than firms that do not have groups. Firstly, due to lower asymmetry information among group companies, Second, business groups can increase the capacity to support group's debt (Locorotondo, 2013)

H_8 = There is a negative relationship between business group and cash holdings

Firm-Specific Antecedents

Table 1: Theoretical Measurements of Variables

Variables	References	Measurements
Growth Opportunities (Growth)	Wasiuzzaman, 2013	(Book value of total assets – book value of equity + market value of equity) / book value of total assets
Firm Size (Size)	Locorotondo <i>et al</i> , 2014	Log (total assets)
Operating Cash Flow (OCF)	Cai <i>et al</i> , 2016	Operating cash flow / total assets
Capital expenditures (Capex)	Cai <i>et al</i> , 2016	(Fixed assets _t – Fixed assets _{t-1}) / Fixed assets _{t-1}
Dividend	Wasiuzzaman, 2013	Dummy variables assigned a value of “0” if dividend is not paid out and “1” if dividend is paid out
Business group (Group)	Locorotondo <i>et al</i> , 2014	Dummy variables assigned a value of “1” if the company controlling of the group holds "directly or indirectly" at least 50% of the firm's shares and “0” if less than 50 % of the firm’s shares
Cash-flow volatility (CFV)	Wasiuzzaman, 2013	Standard deviation of operating cash flow / average of operating cash flow
Net working capital (NWC)	Locorotondo <i>et al</i> , 2014	(Account receivables + inventories – account payables) / total assets

METHOD AND DATA

Sample Selection

The Data of population used are all companies engaged in the manufacturing industry listed on Indonesia Stock Exchange (IDX) in 2009 until 2016. Sampling technique in this study uses the purposive sampling technique. This technique is a method of sampling from the available population data in accordance with the needs of researchers to obtain a sample company of 107 companies.

This study focuses on conducting research on cash holding as the object of research and analyze what factors having a significant effect on it. Statistical analysis conducted in this research is using quantitative statistical method (Priyanto, 2016). The independent variables that are used in this research are net working capital, dividend, firm size, growth opportunities, operating cash flow, cash flow volatility, capital expenditures, and business group. For analyzing the data, the author uses statistical software of Eviews 9.

The data used in this research is secondary data obtained from the publication of annual financial statements of companies listed in the Indonesia Stock Exchange from 2009 to 2016, the Publication of data summary on the archive "fact book" obtained from the official website of Indonesia Stock Exchange is www.idx.co.id and data stream of Thomson Reuters obtained from Data Center, Faculty of Economics and Business, UniversitasIndonesia.

Panel Regression

According to Baltagi (2005), panel data regression as a result of observations from a combination of multiple

cross-sectional units in which each observation unit is observed over a series of time periods. Panel data regression is a modeling technique used in analyzing the influence of independent variables to dependent variables on panel data. There are three possible models on the panel regression as follows :

a. Common Effect Model (CEM)

$$Y_{it} = \beta_0 + \sum_{j=1}^k \beta_j X_{jit} + \varepsilon_{it}$$

b. Fixed Effect Model (FEM)

$$Y_{it} = \beta_0 + \sum_{j=1}^k \beta_j X_{jit} + \mu_i + \varepsilon_{it}$$

c. Random Effect Model (REM)

$$Y_{it} = \beta_0 + \sum_{j=1}^k \beta_j X_{jit} + \varepsilon_{it} ; \varepsilon_{it} = u_i + v_t + w_{it}$$

Where, β_0 is the constant intercept of the model, β is coefficient of independent variables, μ_i is the intercept is not constant from the model, ε is error of the model, u is error of cross section, v is error of time series, w is error of cross section and time series, X is the independent variable, Y is the dependent variable, i is cross section (firms), and t is periods.

By combining the two previous studies that are Wasiuzzaman (2013) and Cai et al (2005) with the selection of research variables, the best model used in this study is fixed effect model so that the research model is formed as follows :

$$CASH_{it} = \beta_0 + \beta_1 Group_{it} + \beta_2 Growth_{it} + \beta_3 Size_{it} + \beta_4 OCF_{it} + \beta_5 CFV_{it} + \beta_6 NWC_{it} + \beta_7 Capex_{it} + \beta_8 Div_{it} + u_i + \varepsilon_{it}$$

RESULT OF RESEARCH

Table 2: Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
CAPEX	0.0313	0.0151	0.4918	-0.8181	0.0841
CASH	0.1223	0.0482	1.7135	0.0002	0.1929
CFV	-0.7073	0.7395	150.271	-1215.315	44.6401
DIVIDEND	0.4953	0	1	0	0.5003
GROUP	0.5164	1	1	0	0.5000
GROWTH	0.5860	0.5249	5.0561	0.0372	0.5000
NWC	0.2696	0.2499	1.2150	-0.1183	0.1668
OCF	0.0769	0.0605	0.9959	-0.5283	0.1283
SIZE	14.3250	14.1830	19.3833	11.1532	1.5973

Table 2 shows the average amount of cash holdings held by manufacturing companies in the period of eight years is 12.23 %. Based on research data, manufacturing companies have a tendency to hold cash that would be very easily

disbursed or liquidated in a relatively short time if at any time required funding in the company's operational activities or investment capital funding attractive in accordance with the motivation of company that is the precautionary motives or transaction motives.

Table 3 Fixed Effect Model Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.533709	0.177045	3.014544	0.0027
CAPEX?	-0.202957	0.051282	-3.957633	0.0001
SIZE?	-0.019280	0.011825	-1.630446	0.1034
NWC?	-0.392542	0.056258	-6.977569	0.0000
DIVIDEND?	0.028561	0.013177	2.167479	0.0305
GROWTH?	-0.055438	0.024177	-2.292978	0.0221
OCF?	-0.033540	0.046799	-0.716670	0.4738
GROUP?	-0.004200	0.008232	-0.510207	0.6101
CFV?	-0.000011	8.92E-05	-0.124633	0.9008

*** Indicate significant difference at the 1% level (one-sided);

** Indicate significant difference at the 5% level (one-sided);

* Indicate significant difference at the 10% level (one-sided);

Note : Cash Holding (Cash) is cash ratio measured by (cash + cash equivalent) / net assets, with net assets = total assets – (cash + cash equivalent).

Table 3 shows that capital expenditures, at a significance level of 5%, have a negative and significant effect on cash holdings. The negative impact of them on cash holdings is supported by the pecking order theory which states that the company will first use internal funds or retained earnings in support of the company's investment funding, then the company will use its debt either risky or safe, and finally companies may use equity (Myers, 1977). The second, cash flow volatility has a negative and insignificant effect on cash holdings. High operational cash flow volatility, one of which will encourage companies to invest in existing projects and even previous projects. Certainly not be separated from the possible risks of existing investments, therefore the tendency of companies to make risky investments will provide greater returns and thus will have an impact on liquid assets or cash position of the company (Islam, 2012).

The third, dividend has a positive and significant effect on the company's cash holdings. In line with Ozkan's study (2004), Ozkan highlighted the effect of dividend payout. It is possible that, the company paying cash dividend will actually increase the value of the company because, with the dividend distribution it will be responded positively by the market, so that investors are interested to invest in the company and indirectly will increase the company's capital, to run the business so it will have implications to the addition of liquid assets or cash. Table 2, shows the median value of the dividend variable "0" which indicates that generally manufacturing companies in Indonesia over the last eight years do not share cash dividends to shareholders. So that the condition of the company's cash position at least in a stable or even increased in line with the addition of excess return obtained by the company as a form of compensation from the company's investment. The fourth, Business groups have a negative and insignificant effect on cash holdings. Companies that have affiliates of a business group tend to have less cash than an unaffiliated company (Locorotondo, 2013). Table 2 shows the median value of the business group variable "1" indicates that the sample trend of this study consists of a manufacturing company, that has a business group affiliation. Therefore, the business group has a negative influence on the cash holdings of the affiliated company over the past eight years. In Indonesia, a company not only has one affiliate business group but

more so that large companies that have control over the company are also not only one big company but more as well. That is, the more companies have affiliates business groups the greater the tendency of companies to hold cash in small amounts.

The fifth, growth opportunities have a negative and significant effect on the company's cash holdings. The company's opportunity to grow and develop in the future by taking advantage of attractive investment opportunities and the ability to take advantage of these investments will increase the company's value (Rebecca, 2013). The results of this study also supports that the growth opportunities of manufacturing companies in Indonesia also contributed to the trend of increase in corporate cash holdings in the future. The sixth, net working capital has a negative and significant effect on the company's cash holdings. The trade-off theory predicts that firms will hold less cash because liquid assets (cash) can be disbursed when cash is needed and reflects the motive of transactions in holding cash (Al-Najjar, 2013). The research period in the last eight years also shows the magnitude of the effect of net working capital on the cash holdings of manufacturing companies. As we know that the Manufacturing Industry has a high cost of daily operational needs for the continuing running of the company's business activities, so the company will hold less cash because cash is used continuously.

The seventh, Operating cash flow has a negative and insignificant effect on the company's cash holdings. Based on the trade-off theory, operating cash flows used as a source of ready-made liquidity can be viewed as an alternative to liquid assets (cash) and there is a negative relationship between cash flow and cash holdings (Kim et al 1998). The operational costs incurred by the manufacturing industry in support of the routine business activities will certainly reduce the amount of cash available. Internal funding from cash is of course an alternative to keep the daily business activities of the company. The last one, the firm size has a negative and insignificant effect on the company's cash holdings. On Table 2 shows that, the median value of firm size is 14.183. It means that the sample of this research is dominated by companies that are large enough when viewed from the range of firm size values included in this study. The above explanation is supported by previous research that Al-Najjar and Belghitar (2011) argue that, large companies are considered more diversified (less risky) than small firms so they tend not to keep cash reserves.

SUMMARY AND CONCLUSIONS

The purpose of this study is to determine and analyze statistically what factors affect the cash holdings of manufacturing companies within the last eight years in 2009 until 2016 in Indonesia. Furthermore, how the relationship and their impacts on managerial manufacturing companies on the results of such research. Therefore, the results of the study show that there are several analyzes that can be concluded as follows:

- Research data show that the amount of cash holdings of manufacturing companies from year to year in 2009 until 2016 experienced a fluctuating trend. The change in the percentage of cash ownership is dominated by an upward trend over several periods and the company holds an average cash rate of 12.23 % over the last eight years. The tendency of manufacturing companies to increase their cash holdings is of course due to a variety of reasons, for example, to meet the routine company's operational needs such as raw material needs, production costs, electricity payments, telephones, wages, or payroll employees for the continuity of business operations even take advantage of existing investment opportunities. The statement is also supported by the theories that have been described in part 2 related to the company's motivation in holding cash that is due to transaction motives, just in case, and also the motive of the agency.

- The variable of capital expenditures has a significant negative effect on cash holdings. That is, the capital expenditure of manufacturing companies over the last eight years significantly reduced the amount of cash holdings of the company. Dividend has a positive and significant effect. It means that manufacturing companies in the last eight years which distributed dividend to shareholders have a positive return on the company's cash holdings. Next, growth opportunities have a significant negative effect. That is, manufacturing companies from 2009 to 2016 which have good growth opportunities will certainly invest capital for projects that have a good chance of growing. The last one, net working capital has significant negative effect. It Means the company's high working capital will affect the company's cash flow is also high. Meanwhile, cash flow volatility, business group, operating cash flow, and firm size have no significant effect on the cash holdings of manufacturing companies in 2009 until 2016.

The suggestions for the next research are the number of research variables added, such as variables that are influenced by external factors such as political connection, gross domestic product, and others, longer period of research for more accurate research results, and the last, the broader sample population size of the company would be better in order to represent the research objectives.

REFERENCES

1. Almeida, H., Campello, M., & Weisbach, M. S. (2004). *The cash flow sensitivity of cash. The Journal of Finance*. Vol 59 No 4, pp 1777-1804.
2. Al-Najjar, Basil. 2013. "The Financial Determinants of Corporate Cash Holdings: Evidence from some Emerging Markets". *International Business Review* 22:77-88.
3. R. Babu Krishnaraj, *Inventory Model with Stock Dependent Demand Rate using Discounted Cash Flow Approach with Trade Credit Period and Inflation, International Journal of Mathematics and Computer Applications Research (IJMCAR), Volume 6, Issue 2, March - April 2016, pp. 43-56*
4. Baltagi, (2005). *Econometric Analysis of Panel Data, Third Edition. John Wiley & Sons.*
5. Bates, T.W., Kahle, K.M., and Stulz, R.M. (2009), "Why do U.S. firms hold so much more cash than they used to?," *The Journal of Finance*, Vol. 64 No. 5, pp. 1985-2021
6. Bates, T.W., Kahle, K.M., and Stulz, R.M. 2009. "Why do U.S. firms hold so much more cash than they used to?," *The Journal of Finance*, Vol. 64 No. 5 : 1985-2021.
7. Cai, Weixing. Zeng, Cheng (Colin), Lee, Edward. Ozkan, Neslihan. 2016. "Do Business Groups Affect Corporate Cash Holdings? Evidence from a Transition Economy". *China Journal of Accounting Research*. 9:1-24.
8. Mohammad Hassani & Azam Sadat Torabi, *Evidence on the Monitoring Role of Managerial Ownership in Moderating the Relationship between Free Cash Flow and Assets Efficiency, International Journal of Accounting and Financial Management Research (IJAFMR), Volume 4, Issue 5, September - October 2014, pp. 1-14*
9. D'Mello, R., Krishnaswami, S. and Larkin, P.J. (2008), "Determinants of corporate cash holdings: evidence from spin-offs", *Journal of Banking and Finance*, Vol. 32 No. 7, pp. 1209-1220
10. Ferreira, M., Vilela, A. (2004). *Why Do Firms Hold Cash? Evidence from EMU Countries. European Financial Management*, 10, 295–319. *Finance vol. 22. Halaman 293-320.*
11. Guizani, M. (2017). *The financial determinants of corporate cash holdings in an oil rich country : evidence from kingdom*

of Saudi Arabia. Borsa Istanbul Review. Vol 17, No. 3, Hal : 133-143.

12. Kim, J., Kim, H., & Woods, D. 2011. *Determinants of corporate cash-holding levels: An empirical examination of the restaurant industry. International Journal of Hospitality Management, 30(3) : 568-574.*
13. Locorotondo, Rosy. Nico, Dewaelheyns. and Cynthia Van, Hulle. 2014. "Cash holdings and business group membership". *Journal of Business Research. 316-323. London: Macmillan*
14. Ma Yafin, (2012). *What determines cash holding of a firm? Evidence from Euro-Zone Listed Firms. Journal of Banking & Finance, 28(9), 2103-2134.*
15. Myers, S.C. 1977. *Determinants of Corporate Borrowing. Journal of Financial Economics. Vol. 13, hal. 187-221.*
16. Opler, T., Pinkowitz, L., Stulz, R. and Williamson, R. (1999), "The determinants and implications of corporate cash holdings", *Journal of Financial Economics, Vol. 52 No. 1, pp. 3-46.*
17. Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. 1999. *The determinants and implications of corporate cash holdings. Journal of financial economics, 52(1) : 3-46.*
18. Ozkan, A., Ozkan, N., 2004. *Corporate Cash Holdings: An Empirical Investigation of UK Companies. Journal of Banking & Finance Vol 28, 2103-2134.*
19. Rebecca, Yulisadan Sylvia Veronica Siregar. 2012. *Pengaruh Corporate Governance Index, Kepemilikan Keluarga, dan Kepemilikan Institusional terhadap Biaya Ekuitas dan Biaya Utang: Studi Empiripada Perusahaan Manufaktur yang Terdaftar di BEI. Simposium Nasional Akuntansi XV Banjarmasin.*
20. Ross et al., (2010). *Fundamental of Corporate Finance (9th Edition). New York : McGraw-Hill*
21. Wasiuzzaman, Shaista, and Veeri Chettiar Arumugam. 2013. "Determinants of Working Capital Investment: A Study of Malaysian Public Listed Firms." *Australasian Accounting Business & Finance Journal 7 (2): 49. Waves. AFA 2004 San Diego Meeting*

